IN THE CLAIMS:

1. (CURRENTLY AMENDED): In an Asynchronous Transfer Mode (ATM) system composed of at least a first data network (10) having ~~,~~ a plurality of switching nodes interconnected by connection lines and including end switching nodes each being connected to at least a Data Transmission equipment (DTE) and being used either as an entry border node (22) when it is connected to a source DTE (18) or an exit border node (28) when it is connected to a destination DTE (20), said first data network using a routing protocol of the type wherein a best route between a source DTE and a destination DTE is determined in a control point associated with said entry border node to which is connected said source DTE and wherein a set-up message is sent by said entry border node, and a second data network (12) including at least one DTE to be used as destination DTE in an exchange of data with a source DTE connected to said first data network and being interconnected with said first data network by means of at least two links (14, 16) not supporting said routing protocol, the at least two links not supporting said routing protocol connecting ~~a~~ switching node~~s~~ of the first data network with ~~a~~ switching node~~s~~ of the second data network;

method for extending the crankback procedure over all said system comprising:

when the a switching ~~exit border~~ node of said first data network receives a clearing message on one of said links indicating that said set-up message has been rejected because said best route is blocked anywhere in said second data network, ~~in~~ said switching node building a crankback information element to be added to said clearing message~~, the clearing message transmitted from a switching node of the second data network to a switching node of the first data network over one of the at least two links not supporting said routing protocol~~, said crankback information element and said clearing message ~~for~~ then transmitted to ~~enabling~~ said entry border node causing said entry border node to find an alternate route avoiding the portion of said best route which is blocked.

2. (ORIGINAL): The method according to claim 1, wherein said crankback information element includes a blocked transit type which can be "preceding", "node" or "succeeding", a blocked transit identifier depending on said blocked transit type and a crankback cause.

3. (ORIGINAL): The method according to claim 2, wherein said blocked transit type is "preceding" and said blocked transit identifier identifies the node preceding the link not supporting said routing protocol as being blocked.

4. (CURRENTLY AMENDED): The method according to claim 1~~, 2 or 3,~~ wherein said links not supporting said routing protocol are Interim Inter switch Protocol (IISP) links.

5. (CURRENTLY AMENDED): The method according to claim 1~~, 2 or 3,~~ wherein said links not supporting said routing protocol are UNI links.

6. (CURRENTLY AMENDED): Asynchronous Transfer Mode (ATM) system composed of at least a first data network (10) having, a plurality of switching nodes interconnected by connection lines and including end switching nodes each being connected to at least a Data Transmission equipment (DTE) and being used either as an entry border node (22) when it is connected to a source DTE (18) or an exit border node (28) when it is connected to a destination DTE (20), said network using a routing protocol of the type wherein a best route between a source DTE and a destination DTE is determined in a control point associated with said entry border node to which is connected said source DTE and wherein a set-up message is sent by said entry border node, and a second data network (12) including at least one DTE to be used as destination DTE in an exchange of data with a source DTE connected to said first data network and being interconnected with said first data network by means of at least two links (14, 16) not supporting said

routing protocol, the at least two links not supporting said routing protocol connecting ~~a~~ switchings node of the first data network with ~~a~~ switching nodes of the second data network; said system further comprising:

means for extending the crankback procedure over all said system ~~in building~~, when ~~the exit border node~~ a switching node of said first data network receives a clearing message on one of said links indicating that said set-up message has been rejected because said best route is blocked anywhere in said second data network, a crankback information element to be added to said clearing message, the clearing message transmitted from ~~a~~ the switching node ~~of the second data network to a switching node of the first data network over one of the at least two links not supporting said routing protocol, said crankback information element and said clearing message for enabling~~ to said entry border node of the first network causing said entry border node to find an alternate route avoiding the portion of said best route which is blocked.

7. (ORIGINAL): The system according to claim 6, wherein said crankback information element includes a blocked transit type which can be "preceding", "node" or "succeeding", a blocked transit identifier depending on said blocked transit type and a crankback cause.

8. (ORIGINAL): The system according to claim 7, wherein said blocked transit type is "preceding" and said blocked transit identifier identifies the node preceding the link not supporting said routing protocol as being blocked.

9. (CURRENTLY AMENDED): The system according to claim ~~6, 7 or 8,~~ wherein said links not supporting said routing protocol are Interim Inter switch Protocol (IISP) links.

10. (CURRENTLY AMENDED): The system according to claim 6~~, 7 or 8,~~ wherein said links not supporting said routing protocol are UNI links.

11. (CURRENTLY AMENDED): For use in a system having a first network and a second network, said first network having at least one entry border node connected to a source node, said first network adhering to a routing protocol which includes the use of a crankback procedure to inform the entry border node of a path failure within the first network, said second network having at least one exit border node connected to a destination node, said second network including at least some elements which do not use a crankback procedure, said first and second networks being interconnected through a plurality of links connecting a plurality of ~~border~~ switching nodes within each network, the plurality of links not supporting said routing protocol connecting at least one switching node of the first data network with at least one switching node of the second data network, a method of extending the crankback procedure to cover path failures in said second network, said method being implemented in a ~~border~~ switching-node in said first network on a proposed path between the source node and the destination node and comprising the steps of:

monitoring messages returned from the second network relating to the proposed path for a clearing message indicative of a failure in the proposed path anywhere in the second network;

in response to detection of said clearing message, generating a crankback information element;

modifying said clearing message by adding said generated crankback information element;

transmitting the modified clearing message from ~~a~~ the switching node of the ~~second~~ first data network to ~~a switching node of the first data network over one of the plurality of links not supporting said routing protocol; and~~

~~forwarding said modified clearing message to~~ the entry border node.

12. (ORIGINAL): The method according to claim 11 wherein said crankback information element includes a blocked transit type field, a blocked transit identifier field and a crankback cause field.

13. (CURRENTLY AMENDED): A method for use in ~~an exit border~~ a switching node in a first network of a system having a first and second network using a best-route routing protocol interconnected by at least two links not supporting said protocol, the at least two links not supporting the routing protocol connecting ~~a~~ switching nodes ~~serving as a border node~~ of the first network to ~~a~~ switching nodes ~~serving as a border node~~ of the second computer network, ~~said exit border node being connected to one of said at least two links~~, said first network having an entry border node to determine a best route, said method comprising:

receiving, at said switching node of the first network, a clearing message from said second network indicating a rejection of said best route;

generating, at said switching node of the first network, a crankback information element in response to said clearing message;

adding, at said switching node of the first network, said crankback information element to said clearing message; and

forwarding said clearing message and crankback information element from said switching node to said entry border node. ~~by transmitting the clearing message with the crankback information from a switching node serving as a border node of the second data network to a switching node serving as a border node of the first data network over one of the plurality of links not supporting said routing protocol.~~

14. (PREVIOUSLY PRESENTED): The method of claim 13, further comprising: wherein said at least two links are Interim Inter Switch Protocol (IISP) links.

15. (PREVIOUSLY PRESENTED): The method of claim 13, further comprising: wherein said at least two links are User-Network-Interface (UNI) links.

16. (PREVIOUSLY PRESENTED): The method of claim 13, further comprising: wherein said system is an Asynchronous Transfer Mode (ATM) system.

17. (CURRENTLY AMENDED): The method of claim 13, further comprising: wherein said a best-route routing protocol is a Private Network Network Interface (PNNI) protocol.

18. (PREVIOUSLY PRESENTED): The method of claim 13, further comprising: wherein said crankback information element includes a blocked transit type field, a blocked transit identifier field, and a crankback cause field.

19. (CURRENTLY AMENDED): ~~An exit border~~ A switching node in a first network of a system having a first and second network using a best-route routing protocol interconnected by at least two links not supporting said protocol, the at least two links not supporting the routing protocol connecting ~~a~~ switching node~~s serving as a border node~~ of the first network to ~~a~~ switching node~~s serving as a border node~~ of the second computer network, ~~said exit border node being connected to one of said at least two links~~, said first network having an entry border node to determine a best route, said ~~exit border~~ switching node comprising:

means for receiving a clearing message from said second network indicating a rejection of said best route;

means for generating a crankback information element in response to said clearing message;

means for adding said crankback information element to said clearing message; and

means for forwarding said clearing message and crankback information element to said entry border node ~~by transmitting the clearing message with the crankback information from a switching node serving as a border node of the second data network to a switching node serving as a border node of the first data network over one of the plurality of links not supporting said routing protocol~~.

20. (CURRENTLY AMENDED): A system, comprising:

a first network using a best-route routing protocol;

at least two links not supporting said protocol connected to ~~at least one switching node in~~ said first network;

a second network using a best-route routing protocol, said second network interconnected with said first network by said at least two links~~, said at least two links connected to a switching node of said second network~~;

an entry border node in said first network to send a set-up message having a best route from said first network to said second network; and

a first ~~border~~ switching node in said first network connected to one of said at least two links, a second ~~border~~ switching node in said second network connected to said first ~~border~~ switching node by said one of said at least two links, said ~~second border~~ first switching node to receive a clearing message from said second network indicating a re-

jection of said best route, said first switching node to generate a crankback information element in response to said clearing message, and add said crankback information element to said clearing message, and forward said clearing message and crankback information element ~~along said one of said at least two links~~ to said ~~first~~ entry border node ~~by said one of said at least two links~~.

21. (PREVIOUSLY PRESENTED): The system of claim 20, further comprising: wherein said at least two links are Interim Inter Switch Protocol (IISP) links.

22. (PREVIOUSLY PRESENTED): The system of claim 20, further comprising: wherein said at least two links are User-Network-Interface (UNI) links.

23. (PREVIOUSLY PRESENTED): The system of claim 20, further comprising: wherein said system is an Asynchronous Transfer Mode (ATM) system.

24. (CURRENTLY AMENDED): The system of claim 20, further comprising: wherein said a best-route routing protocol is a Private Network Network Interface (PNNI) protocol.

25. (PREVIOUSLY PRESENTED): The system of claim 20, further comprising: wherein said crankback information element includes a blocked transit type field, a blocked transit identifier field, and a crankback cause field.

26. (CURRENTLY AMENDED): In a system having a first and second network using a best-route routing protocol interconnected by at least two links not supporting said protocol, a method comprising:

sending a set-up message from a first ~~border~~ node of said first network to a second ~~border~~ node of said second network over one of said at least two links, said set-up message having a best route;

receiving a clearing message at said first ~~second~~ border node of said ~~second~~ first network from said second network indicating a rejection of said best route;

generating, at said ~~second~~ first ~~border~~ node, a crankback information element in response to said clearing message;

adding said crankback information element to said clearing message;

forwarding said clearing message and crankback information element from said ~~second~~ first ~~border~~ node to said ~~first~~ entry border node in said first network~~, said forwarding over said one of said at least two links~~; and

determining, at said entry border node in said first network, an alternate route over another of said at least two links, thereby avoiding said rejected portion of said best route.

27. (PREVIOUSLY PRESENTED): A computer readable media, comprising: said computer readable media containing instructions for execution in a processor for the practice of the method of claim 1, or claim 11, or claim 13, or claim 26

28. (CANCELLED):

29. (CANCELLED)

30. (CANCELLED)

31. (CANCELLED)

32. (CANCELLED)

33. (NEW) A method for operating computer networks comprising:

providing a first computer network implementing a PNNI network protocol;

providing a second computer network implementing the PNNI network protocol;

interconnecting the first and the second computer networks by at least two network links not supporting the PNNI protocol;

receiving by a switching node of the first computer network a clearing message from the second computer network indicating a link in the second network is blocked;

determining by the switching node, that the clearing message arrived over a first of the at least two network links not supporting the PNNI protocol and that the clearing message contains a cause for which crankback may be generated;

in response to the determining, generating a new clearing message at the switching node including a crankback information element;

forwarding the clearing message including the crankback information element to an entry border node in the first computer network;

selecting, at the entry border node in the first network, an alternate route over a second of the at least two network links not supporting the PNNI protocol to avoid the link in the second computer network that is blocked.

34. (NEW) The method of claim 33 further comprising:

wherein the at least two network links not supporting the PNNI protocol are Interim Inter Switch Protocol (IISP) links.

35. (NEW) The method of claim 33 further comprising:

wherein the at least two network links not supporting the PNNI protocol are User-Network-Interface (UNI) links.

36. (NEW) The method of claim 33 further comprising:

wherein the crankback information element includes a blocked transit type field, a blocked transit identifier field, and a crankback cause field.

37. (NEW) A method for operating a node in a first computer network, the first computer network supporting a best-route routing protocol, the method comprising:

receiving by the node a clearing message indicating a link in a second network is blocked;

determining by the node that the clearing message arrived over a link to the second computer network that does not support the best-route protocol and that the clearing message contains a cause for which crankback may be generated;

in response to the determining, generating a new clearing message at the node including a crankback information element;

forwarding the new clearing message including the crankback information element to an entry border node, whereby the entry border node selects an alternate route over a second network link that does not support the best-route protocol to access the second network.

38. (NEW) The method of claim 37 further comprising:

wherein the link that does not support the best-route protocol is a Interim Inter Switch Protocol (IISP) link.

39. (NEW) The method of claim 37 further comprising:

wherein the best-route routing protocol is a Private Network Network Interface (PNNI) protocol.

40. (NEW) The method of claim 37 further comprising:

wherein the link that does not support the best-route protocol is a User-Network-Interface (UNI) link.

41. (NEW): The method of claim 37 further comprising:

wherein the crankback information element includes a blocked transit type field, a blocked transit identifier field, and a crankback cause field.

42. (NEW) A network system comprising:

a first computer network implementing a PNNI network protocol;

a second computer network implementing the PNNI network protocol;

at least two network links not supporting the PNNI protocol interconnecting the first and the second computer networks;

switching node of the first computer network adapted to receive a clearing message from the second computer network indicating a link in the second network is blocked, the switching node further adapted to:

a) determine that the clearing message arrived over a first of the at least two network links not supporting the PNNI protocol and that the clearing message contains a cause for which crankback may be generated,

b) in response to the determination, generate a new clearing message at the switching node including a crankback information element,

c) forward the clearing message including the crankback information element;

an entry border node in the first computer network for receiving the clearing message including the crankback information and selecting an alternate route over a second of the at least two network links not supporting the PNNI protocol to avoid the link in the second computer network that is blocked.

43. (NEW) The network system of claim 33 further comprising:

wherein the at least two network links not supporting the PNNI protocol are Interim Inter Switch Protocol (IISP) links.

44. (NEW) The network system of claim 33 further comprising:

wherein the at least two network links not supporting the PNNI protocol are User-Network-Interface (UNI) links.

45. (NEW) The network system of claim 33 further comprising:

wherein the crankback information element includes a blocked transit type field, a blocked transit identifier field, and a crankback cause field.

46. (NEW) A node in a first computer network, the first computer network supporting a best-route routing protocol, the node comprising:

means for receiving at the node a clearing message indicating a link in a second network is blocked;

means for determining by the node that the clearing message arrived over a link to the second computer network that does not support the best-route protocol and that the clearing message contains a cause for which crankback may be generated;

in response to the determining, means for generating a new clearing message at the node including a crankback information element;

means for forwarding the new clearing message including the crankback information element to an entry border node, whereby the entry border node determines an alternate route over a second network link that does not support the best-route protocol to access the second network.

47. (NEW) The node of claim 37 further comprising:

wherein the link that does not support the best-route protocol is a Interim Inter Switch Protocol (IISP) link.

48. (NEW) The node of claim 37 further comprising:

wherein the best-route routing protocol is a Private Network Network Interface (PNNI) protocol.

49. (NEW) The node of claim 37 further comprising:

wherein the link that does not support the best-route protocol is a User-Network-Interface (UNI) link.

50. (NEW) The node of claim 37 further comprising:

wherein the crankback information element includes a blocked transit type field, a blocked transit identifier field, and a crankback cause field.

51. (NEW) A computer readable medium containing executable program instructions for operating a node in a first network supporting a best-route routing protocol, the executable program instructions comprising program instructions for:

receiving by the node a clearing message indicating a link in a second network is blocked;

determining by the node that the clearing message arrived over a link to the second computer network that does not support the best-route protocol and that the clearing message contains a cause for which crankback may be generated;

in response to the determining, generating a new clearing message at the node including a crankback information element;

forwarding the new clearing message including the crankback information element to an entry border node, whereby the entry border node selects an alternate route

over a second network link that does not support the best-route protocol to access the second network.